

**The Wisconsin Karner Blue Butterfly Habitat Conservation Plan**  
**Annual Report of Activities for Calendar Year 2003**



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Prepared by

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## **Introduction**

The Wisconsin Karner Blue Butterfly Habitat Conservation Plan, approved in September 1999, established a statewide program for Karner blue butterfly conservation in Wisconsin. The Wisconsin Department of Natural Resources (Wisconsin DNR) is authorized to oversee implementation of this plan and the activities described in the associated implementing agreement according to the terms of Federal Fish and Wildlife Permit #TE0100064-4. This permit, issued by the United States Fish and Wildlife Service (USFWS) to the Wisconsin DNR on September 27, 1999, authorizes incidental take of Karner blue butterflies (Karner blues) according to the terms described therein. Thirty-seven organizations currently participate as full or limited partners in the Wisconsin Karner Blue Butterfly Habitat Conservation Plan (HCP). This report summarizes activities conducted by these 37 partners and one associated private landowner program on HCP-covered lands in 2003.

## **Effectiveness Monitoring**

HCP partners surveyed effectiveness-monitoring sites randomly selected from the Karner Blue High Potential Range. Surveys were conducted on three levels: Level 1 surveys determined presence/absence of wild lupine (shifting mosaic sites only); Level 2 surveys determined presence/absence of Karner blues at sites containing significant lupine in the previous two monitoring seasons (shifting mosaic and permanency of habitat sites included); and Level 3 surveys determined relative abundance of Karner blues at sites in the Level 2 site pool. Level 1 and 2 survey dates are graphed in Figure 1.

Level 1 surveys of 213 sites revealed significant lupine present at 45 sites (21.1% of sites surveyed). Level 2 surveys of 229 sites revealed Karner blue presence at 75 sites (40.1% of sites containing significant lupine at the time of the survey). Level 3 surveys suggested a detection rate of 7.2 Karner blues per kilometer of transect at sites containing significant lupine at the time of the survey (6 to 8-ft. observation distance from transect line). Results of 2003 effectiveness monitoring surveys are summarized in *Appendix A: 2003 Wisconsin Karner Blue Butterfly HCP Effectiveness Monitoring Results*.

## **Self Monitoring**

Twenty-five partners conducted self-monitoring surveys (e.g., pre-management and/or post-management surveys) for lupine and/or Karner blues in 2003. Partners surveyed 542 sites for lupine and found lupine present on 383 sites. Partners surveyed 282 sites for Karner blues and found Karner blues on 165 sites. Self-monitoring results are summarized in *Appendix B: Summary of HCP Partner Activities in 2003*.

## **Associated Species Surveys**

No associated species surveys were reported in 2003.

## **Certification of Surveyors**

The Wisconsin DNR verified that all effectiveness monitoring surveyors had attended one of three annual effectiveness monitoring training sessions (*Appendix D: Certified Surveyors for Karner Blue Butterfly Effectiveness Monitoring*). When partners received their effectiveness monitoring assignments, the Wisconsin DNR urged proper completion of updated monitoring forms and offered technical advice. Monitoring and annual report forms were revised to encourage proper completion. The Wisconsin DNR will continue to encourage improvement and consistency in the survey process through individual contacts, improved training, and other means.

## **Land Transfers**

Seven partners acquired 339 total acres and sold 3,230 total acres of HCP-covered land in 2003 (net decrease of 2,891 acres). Some transfers were between partners (*Appendix E: Land Transferred in 2003*). As of December 2003, the HCP covered approximately 248,995 acres.

## **Disturbance, Land Use, and Land Management Activities**

Seven partners reported land management activity on sites occupied by Karner blues within the High Potential Range (*Appendix F: Disturbance, Land Use, and Land Management Activities Conducted in 2003*). Activities encompassed 1,540 acres of habitat and an additional 42.7 miles of trails, roadsides and firebreaks. Activities included timber harvest, mowing, brushing, prescribed burning and invasive plant control. The Wisconsin DNR continues to ensure partners' compliance with HCP protocols governing pre- and post-management surveys and appropriate documentation. Partners are contacted individually regarding specific concerns or inconsistencies in reporting, and corrective action is recommended if appropriate. The USFWS approved the use of pre-management surveys from representative sites at Wisconsin DNR Glacial Lake Grantsburg properties due to the extensive Karner blue habitat found there (Figure 2).

No HCP partner reported permanent take of Karner blue habitat (*Appendix B: Summary of HCP Partner Activities in 2003*).

## **Proactive Conservation Activities**

In 2003, 20 partners and numerous small private landowners conducted proactive conservation activities on more than 3,512 acres of land not yet occupied by Karner blues and/or outside the Karner Blue High Potential Range (*Appendix G: Proactive Conservation Activities Conducted in 2003*). Partners conducted a wide variety of activities to feature and enhance Karner blue habitat, including timber management and harvest, mowing, prescribed burning, trail construction, collection and planting of lupine seed, and invasive plant control. In many cases, land managers undertook these efforts voluntarily, on lands where consideration of Karner blues was not legally required. The USFWS private lands program supported several of these activities.

## **Outreach and Education Activities**

Twenty-one partners reported outreach and education activities in 2003, sometimes working in conjunction with the USFWS private lands program. Outreach included brochure and video production, presentations at festivals and conferences, website development, and one-on-one conversations with neighboring landowners (*Appendix H: Outreach and Education Activities Conducted in 2003*). As in past years, partners hosted several field trips at restored grassland sites like Quincy Bluff and the Bauer Brockway Barrens. The Wisconsin DNR has encouraged more diligent reporting of outreach activities; many partners have remarked that Karner blue-related outreach has become so routine, they sometimes forget to report it. Partners estimate that they reached 1,958,620 people through educational and outreach activities in 2003.

## **Improvements in Reporting Procedures**

The Wisconsin DNR continues to incorporate suggestions for reporting improvement from all partners and the USFWS. The current annual report form includes explicit instructions and specific entries for each piece of information required. The quality of completed annual reports and surveys has dramatically improved since major reporting improvements were implemented in 2001. Many partners have also taken advantage of electronic reporting.

In 2003, the Wisconsin DNR developed an HCP orientation program for new and existing partners to use in staff training. In part, this program was meant to correct minor reporting errors committed by new HCP partner representatives. The HCP Implementation Oversight Committee is concerned with this issue and is investigating additional measures to assure continual improvement in HCP implementation over time.

## **HCP Management and Process Improvement**

Current economic and budget constraints have forced us to improve the efficiency of HCP processes. Partners are pursuing new approaches to HCP goals that add to the success of the

plan while limiting costs. The current focus of process improvement is the effectiveness monitoring system. Using adaptive management provisions, partners aim to improve the value of monitoring efforts by concentrating on the effects of specific conservation measures. The Implementation Oversight Committee (IOC) has established the Monitoring Improvement Team to work on this.

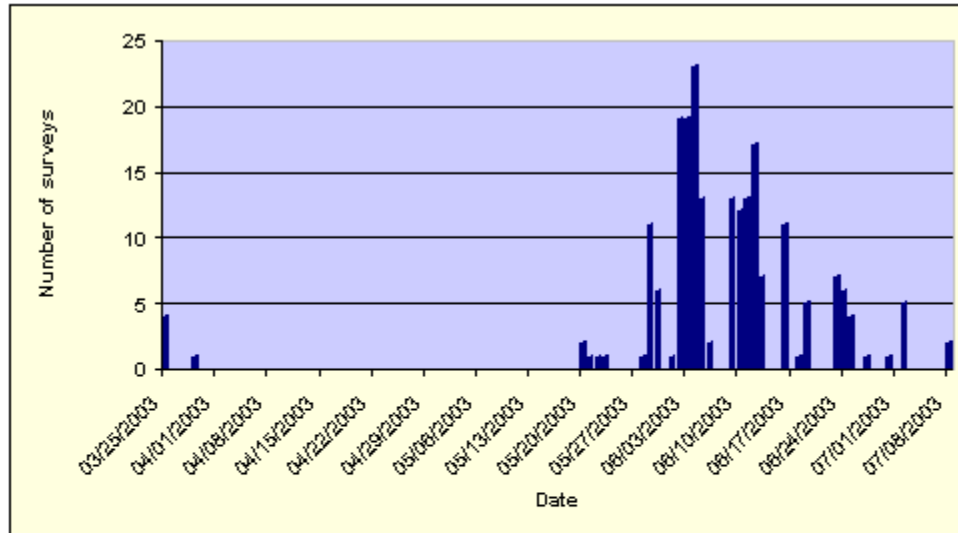
Successional staff management is an important improvement that partners must pursue in the near future. As staff within partner organizations retire or move on to other work, the ranks of those who developed the strategies and understand the broader significance of this HCP get thinner. The IOC recognizes this problem and is discussing ways to build continuity in the program.

A summary of HCP compliance audits conducted by the Wisconsin DNR in 2003 is attached as Appendix I.

*If you have questions about this report or would like to receive a copy of it, please contact Peter Moreno (608-266-5241; [Peter.Moreno@dnr.state.wi.us](mailto:Peter.Moreno@dnr.state.wi.us)) or Dave Lentz (608-261-6451; [David.Lentz@dnr.state.wi.us](mailto:David.Lentz@dnr.state.wi.us)). You may request a copy by writing to Wisconsin Department of Natural Resources, Attn: Peter Moreno, ER/4, 101 S. Webster St., PO Box 7921, Madison, WI 53707-7921.*

**Figure 1**

Level 1 surveys



Level 2 surveys

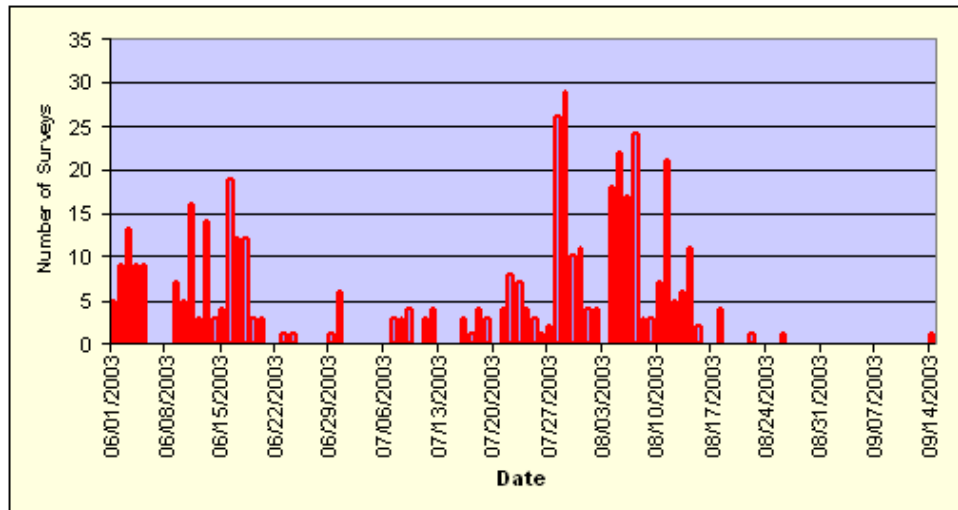
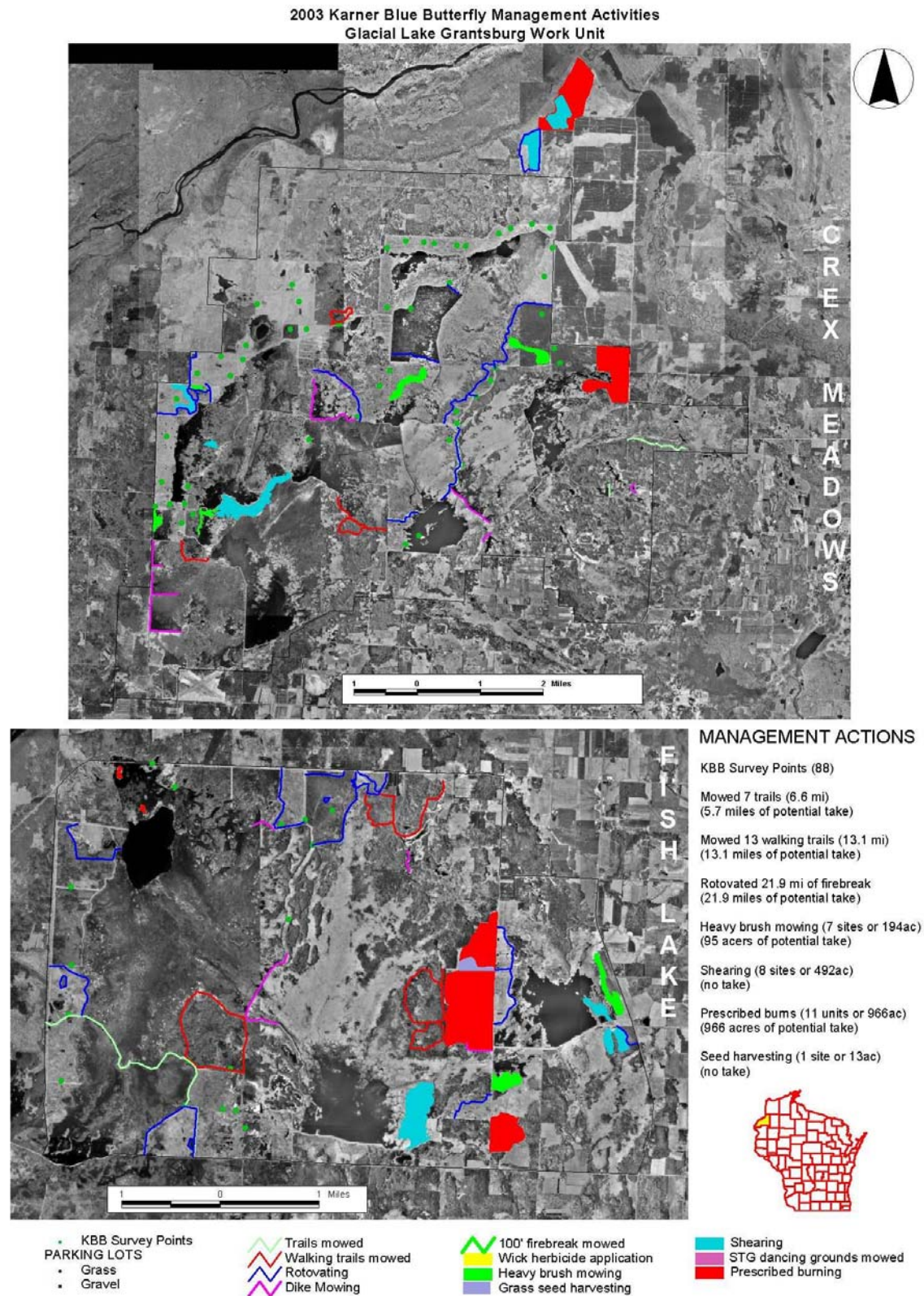


Figure 2





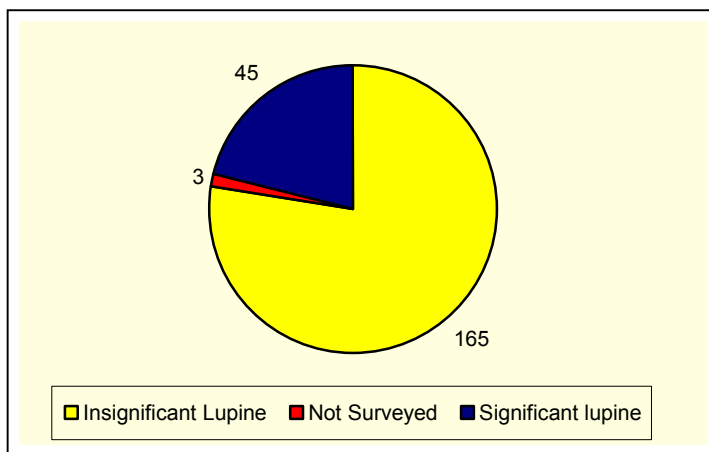
## Appendix A: 2003 Wisconsin Karner Blue Butterfly Effectiveness Monitoring Results

### *Level One Survey Results: Lupine Significantly Present / Insignificant*

Target number of sites to survey annually: 200

Management Strategy*	Survey Results				
	Significant Lupine	Insignificant Lupine	Not Surveyed	Total Number of valid sites assigned	Percent of sites surveyed with lupine present
Shifting Mosaic (SM)	45	165	3	213	21.1%

\* Note that no permanency of habitat (POH) sites were surveyed at Level One in 2003

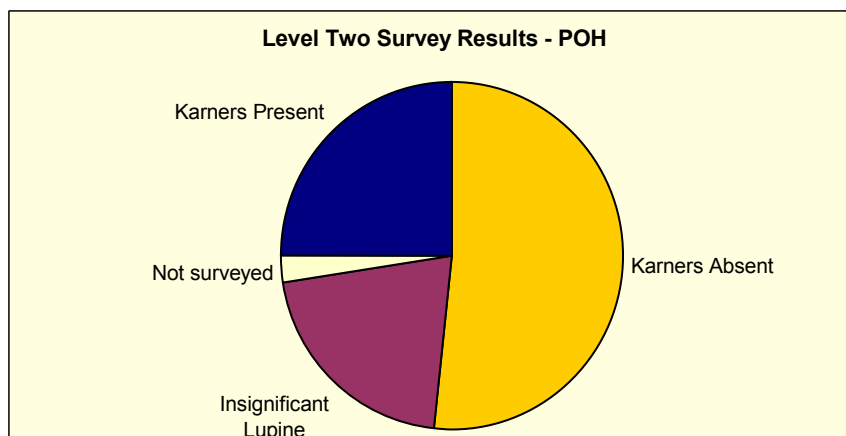
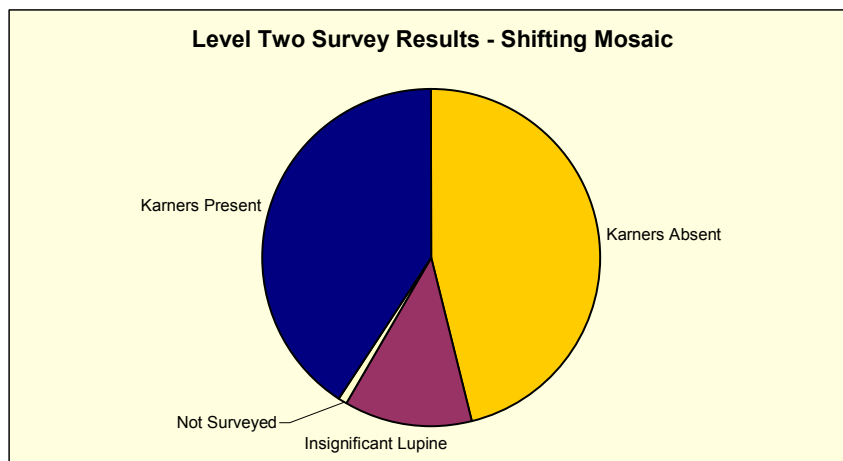


## 2003 Wisconsin Karner Blue Butterfly Effectiveness Monitoring Results

### *Level Two Survey Results: Karner Blue Butterfly Presence/Absence*

Target number of sites to survey annually: 200

Management Strategy	Survey Results					
	Karners Present	Karners Absent	Insignificant Lupine	Not surveyed	Total Number of sites assigned	Percent of lupine sites surveyed with Karners present
Permanency of habitat	29	60	24	3	116	32.6%
Shifting Mosaic	46	52	14	1	113	46.9
All sites combined	75	112	38	4	229	40.1



## 2003 Wisconsin Karner Blue Butterfly Effectiveness Monitoring Results

### *Level Three Survey Results: Karner Blue Butterfly Relative Abundance*

Target number of sites to survey annually: 80

Management Strategy	Survey Results						
	Karners Present	Karners Absent	Insignificant Lupine	Not surveyed	Total Number of sites assigned	Percent of sites with lupine containing Karners	Index of Detection Rate (Karners/Km)
Permanency of habitat	9	15	8	5	37	37.5%	9.2
Shifting Mosaic	20	26	9	2	57	43.5	6.13
All sites combined	29	41	17	7	94	41.4	7.23

